

The identity of the Marquesan Swiftlet *Collocalia ocista* Oberholser

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In 1906 Oberholser described the swiftlet of the Marquesas Islands as a new species, *Collocalia ocista*. The holotype, USNM 212330, is a ♀ collected from Nukuhiva Is. by C. H. Townsend on 16 September 1899. The description was based on a total of 5 specimens collected from two different groups of islands, which are more than 1000 km apart, the Marquesas Islands (1 ♂, 1 ♀, 2 unsexed) and the Society Islands (1 ♂).

The classification of swiftlets presents some of the most difficult problems in avian taxonomy (Oberholser 1906, Mayr 1937, Peters 1940, Salomonsen 1983). It is not surprising, therefore, that authors have varied opinions as to whether *ocista* should be recognised as a species. Stresemann (1925) recognised it as a subspecies of *C. francica*. Berlioz (1929), Fisher & Wetmore (1931) and Pratt (1986) agreed to accept it as a full species, while Mayr (1937), Peters (1940), Medway (1966), Holyoak (1975) and Salomonsen (1983) considered *ocista* as a subspecies of *C. leucophaea*. Holyoak & Thibault (1978), however, treated *C. ocista* and *C. leucophaea* as "closely related forms".

Oberholser (1906) pointed out that much confusion arose because of the failure to discriminate the swiftlets having the tarsus entirely naked from those in which the tarsus is more or less feathered. He further assumed that the problems would disappear if all the swiftlets with any feathering on the tarsus were placed in a separate subgeneric group. Based on this characteristic, Oberholser (1906) separated the genus *Collocalia* into two subgenera: (1) his proposed newly erected subgenus *Aerodramus*, type *Collocalia innominata* Hume, characterized by tarsus more or less feathered; and (2) subgenus *Collocalia*, type *Collocalia esculenta* (Linn.), characterized by tarsus entirely without feathers.

However, although tarsal feathering is surely an important differentiating character in swiftlets. I doubt whether the genus *Collocalia* should be separated into two subgeneric groups based solely on tarsal feathering. Oberholser (1906) seemed unaware that there are species which he listed under subgenus *Collocalia* that also have a feathered tarsus, and *vice versa*.

Based on the colour of the plumage and the ability to echolocate, Brooke (1970) separated the genus *Collocalia* Gray, 1840 into three subgenera. Two years later (Brooke 1972), on reconsideration, he gave these full generic rank, namely *Hydrochous*, *Aerodramus* and *Collocalia* (cf. Medway & Pye 1977). I agree with Dickinson (1989a, b), Sibley & Monroe (1990) and Dickinson *et al.* (1991) in putting all the swiftlets (incl. *gigas*) in the genus *Collocalia* Gray, 1840.

TABLE 1
Wing & tail lengths, and tail furcation (in mm) of swiftlets from Marquesas and Tahiti Islands

	Marquesas (<i>ocista</i>)			Tahiti (<i>leucophaea</i>)		
	<i>n</i>	mean	s.d.	<i>n</i>	mean	s.d.
Wing length	70	119.21	2.57	9	122.00	2.03
Tail length*	70	61.47	1.88	9	56.00	2.46
Tail furcation**	70	9.48	1.42	9	5.94	1.51

*=outer tail; **=(outer tail—inner tail) length

I have examined 106 specimens of swiftlets from Marquesas Islands (Nukuhiva Is.: 27 ♂♂, 8 ♀♀, 11 unsexed, 3 juvs.; Uahuka Is.: 9 ♂♂, 8 ♀♀, 4 unsexed; Eiau Is.: 1 ♂, 2 ♀♀, 3 unsexed; Uapu Is.: 2 ♂♂, 1 ♀, 2 unsexed; Hivaoa Is.: 8 ♂♂, 3 ♀♀, 11 unsexed; and Tahuata Is.: 3 ♀♀) including the holotype of *ocista* from Nukuhiva Island, and 18 specimens from Society Islands (Tahiti Is.: 12 ♂♂, 4 ♀♀, 2 unsexed) including the syntypes of *leucophaea* (MCZ 75699 & USNM 14328) and the holotype of *thespesia* (USNM 212329). The skins for this study are in the collections of AMNH (New York), BMNH (Tring, UK), MCZ (Harvard), MNHN (Paris) and USNM (Washington).

The swiftlet from Tahiti has a longer wing than that of the Marquesas (*cf.* Holyoak & Thibault 1978). In contrast, the Marquesan Swiftlet has a longer tail and deeper tail furcation than that of the Tahiti Is. (Table 1). It is very difficult, however, to separate the two populations by the colour of the feathers without using a colour guide. The back feathers of the Marquesas bird are consistently dusky brown, while those of Tahiti are consistently fuscous (colour nos. 19 and 21, respectively; Smithe 1975).

The tarsus of *C. leucophaea* from Tahiti is naked, while on the basis of this character the Marquesan Swiftlet consists of two populations. The northern population on the islands of Nukuhiva (type locality of *ocista*), Uahuka and Eiau (Fig. 1) has the tarsus feathered, while the southern population on the islands of Uapu, Hivaoa, and Tahuata has the tarsus bare. I fully agree with the opinion that the swiftlet from Tahiti identified by Finsch (1877) as *Collocalia cinerea* (Gm.) [= *Collocalia cinerea* Cassin] and named by Oberholser (1906) as *Collocalia thespesia* is a junior synonym of *Macropteryx leucophaeus* (now *Collocalia leucophaea*), described by Peale (1848) from the same island.

The morphological characters summarized in Table 1 indicate that the Marquesan Swiftlet *Collocalia ocista* Oberholser, 1906 should be treated as a distinct species. I propose that the two Marquesan populations are formally separated in two subspecies (Table 2). The proposed alterations to the nomenclature of *ocista*, therefore, are as follows:

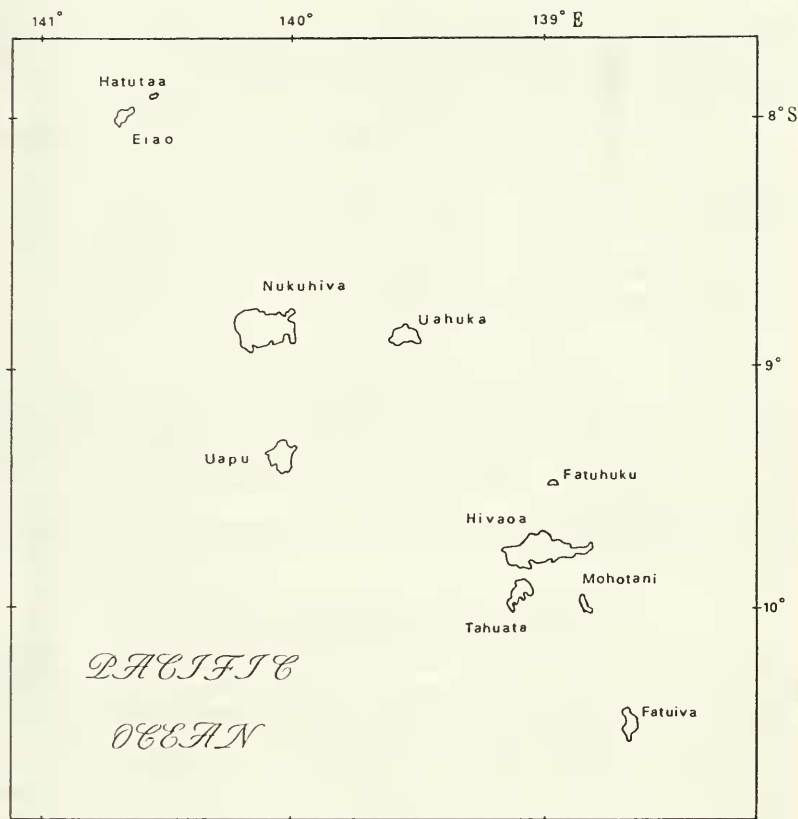


Figure 1. Map of Marquesas Islands

Collocalia ocista ocista Oberholser

Collocalia ocista Oberholser, *Proc. Acad. Nat. Sci. Philadelphia* 58, 1906, pp. 179 & 184: Nukuhiva Island, Marquesas Islands.

Holotype. USNM 212330, ad. ♀, collected from Nukuhiva Is., Marquesas Islands by Ch. H. Townsend on 16 September 1899.

Measurements of the holotype (mm). Wing (chord) 117, outer tail 64.0, tail furcation 10.0, culmen, 5.0, tarsus 10.0.

Specimens examined (incl. the holotype). AMNH—63 specimens (Nukuhiva Is.: 26 ♂♂, 7 ♀♀, 10 unsexed; Uahuka Is.: 8 ♂♂, 5 ♀♀, 1 unsexed; and Eiao Is.: 1 ♂, 2 ♀♀, 3 unsexed); BMNH—4 specimens (Nukuhiva Is.: 1 ♂, 3 juvs.); MNHN—1 specimen (Nukuhiva Is.: 1 unsexed); USNM—8 specimens (Nukuhiva Is.: 1 ♀, the holotype; Uahuka Is.: 1 ♂, 3 ♀♀, 3 unsexed).

Description. The colour of the dorsal feathers is almost uniform dusky brown, the rump is slightly lighter. Wings and tail are more

TABLE 2

Wing & tail lengths, and tail furcation (in mm) of *C. o. ocista* Oberholser and *C. o. gilliardi* subsp. nov.

	<i>C. o. ocista</i>			<i>C. o. gilliardi</i>		
	<i>n</i>	mean	s.d.	<i>n</i>	mean	s.d.
Wing length	48	118.43	1.99	22	120.91	2.90
Tail length*	48	61.06	1.80	22	62.36	1.77
Tail furcation**	48	9.41	1.34	22	9.63	1.61

*=outer tail; **=(outer tail—inner tail) length

blackish. The colour of ventral feathers is between drab and olive-brown (col. nos. 27 & 28, Smithe 1975). The average wing length (118.43 mm) is shorter, the tail length (61.06 mm) is longer, and the tail furcation (9.41 mm) is deeper than those of *leucophaea* (Table 1). The tarsus is feathered.

Range. Nukuhiva, Uahuka and Eiao Is. (Marquesas Islands) north of 9° South latitude (Fig. 1).

***Collocalia ocista gilliardi* subsp. nov.**

Holotype. AMNH 190163, ad. ♂, collected from Hivaoa Island, Marquesas Islands, by E. H. Quayle & R. H. Beck on 26 January 1921.

Measurements of the holotype (mm). Wing (chord) 125.0, outer tail 62.0, tail furcation 8.0, culmen 5.0, tarsus 9.5.

Specimens examined (incl. the holotype). AMNH—30 specimens (Uapu Is.: 2 ♂♂, 1 ♀, 2 unsexed; Hivaoa Is.: 7 ♂♂, 3 ♀♀, 11 unsexed; and Tahuata Is.: 3 ♂♂); and BMNH—1 specimen (Hivaoa Is.: 1 ♂).

Description. Similar to the nominate race, but tarsus is naked; the average wing length (120.91 mm) and the average tail length (62.36) are longer, and the tail furcation (9.63 mm) is slightly deeper (Table 2).

Range. Uapu Is., Hivaoa, Is., and Tahuata Is. (Marquesas Islands) south of 9° South latitude. Probably it also occurs on Fatuiva Is. (Fig. 1).

Etymology. I take pleasure in naming this new subspecies in honour of my first teacher in ornithology, the late Dr. E. Thomas Gilliard, late Curator of the Department of Ornithology, The American Museum of Natural History.

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